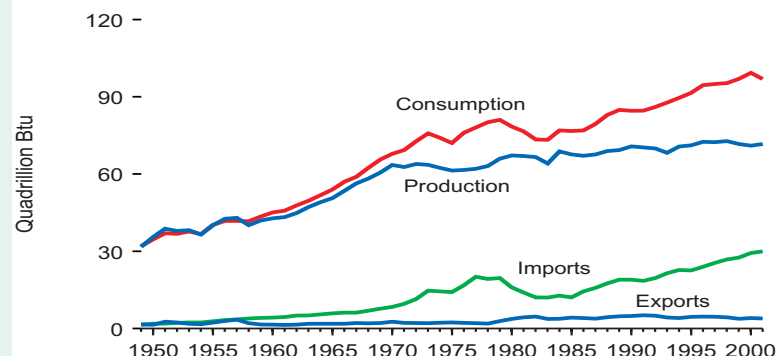


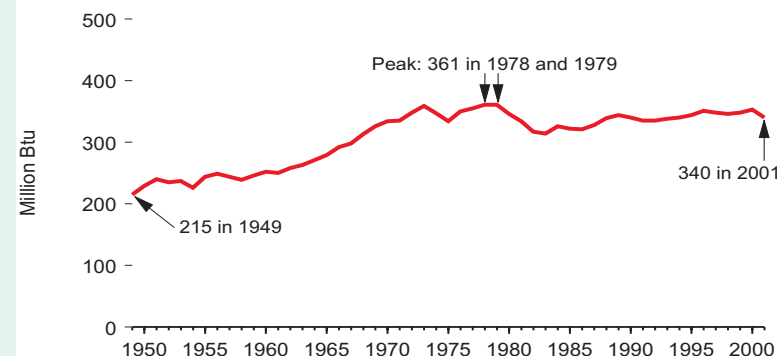
# Overview

**Figure 1. Energy Overview**



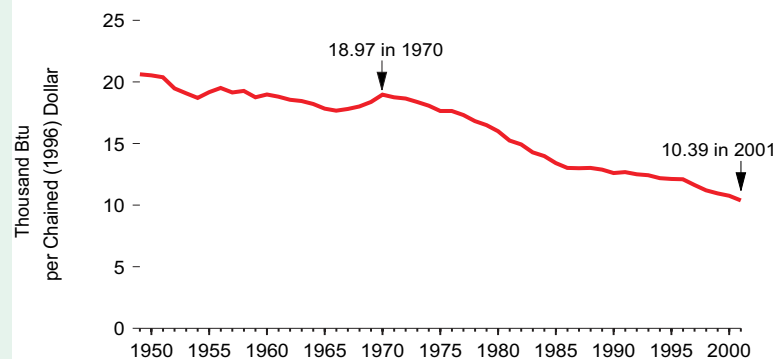
The United States was self-sufficient in energy until the late 1950s when energy consumption began to outpace domestic production. The Nation imported more energy to fill the gap. In 2001, net imported energy accounted for 27 percent of all energy consumed.

**Figure 2. Energy Consumption per Person**



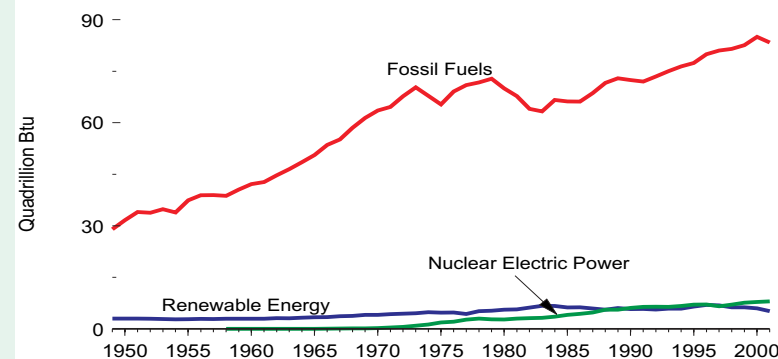
Energy use per person stood at 215 million Btu in 1949. The rate generally increased until the oil price shocks of the mid-1970s and early 1980s caused the pattern to reverse for a few years. After slight increases in the 1990s, the rate fell 4 percent from 2000 to 2001.

**Figure 3. Energy Use per Dollar of Gross Domestic Product**



Over the second half of the 20th century, the rate at which energy was consumed per dollar of the economy's output of goods and services fell dramatically. By the end of the century, the rate was half of the mid-century level. The rate in 2001 was 45 percent below that in 1970. The decline resulted from efficiency improvements and structural changes in the economy.

**Figure 4. Energy Consumption by Source**



Most energy consumed in the United States has come from fossil fuels. Renewable energy resources, mostly hydroelectricity and the industrial use of biomass, have supplied a relatively small but steady portion. In the late 1950s, nuclear fuel began to be used to generate electricity, and, by the late 1980s, contributed about the same share as renewable energy.

# Consumption by Source

Figure 5. Energy Consumption by Source, 1635-2001

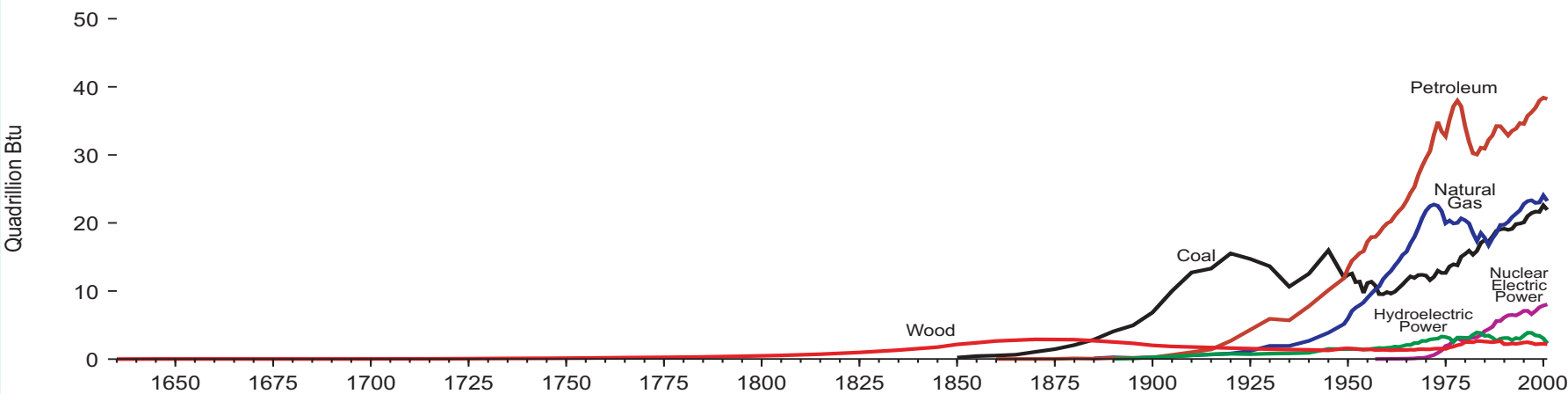
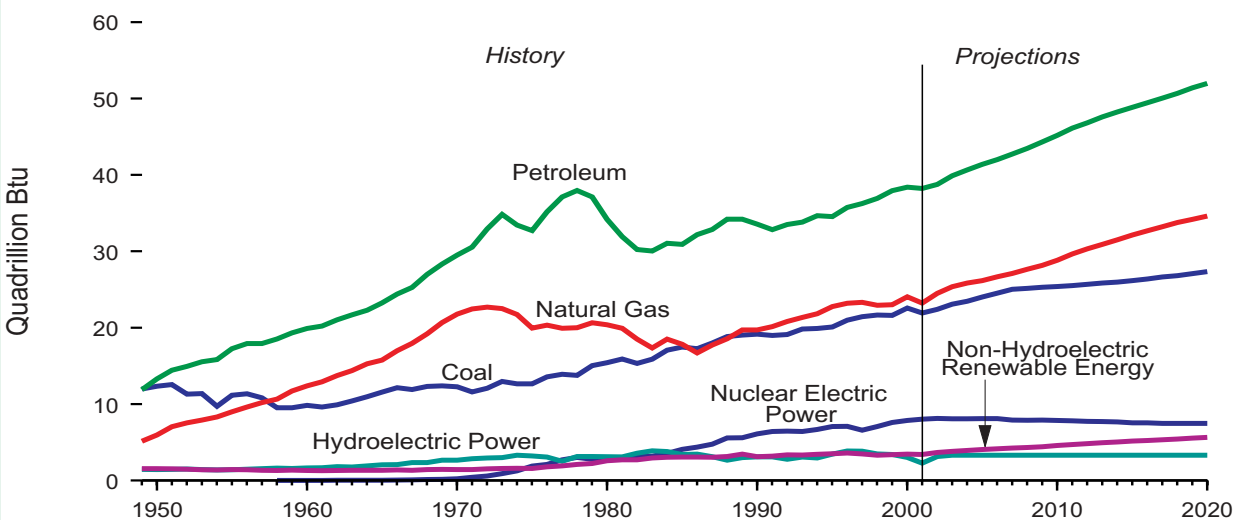


Figure 6. Energy Consumption History and Outlook, 1949-2020

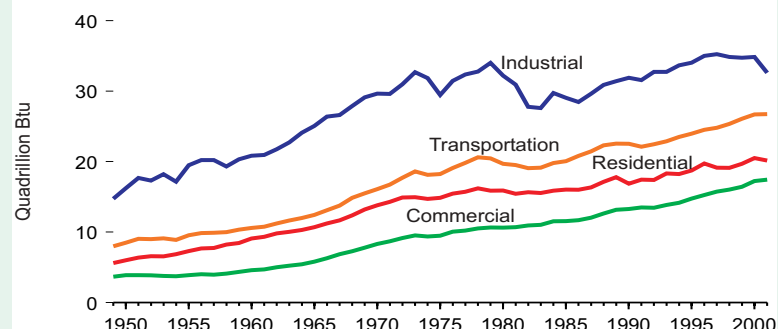


In the long view of American history, wood served as the preeminent form of energy for about half of the Nation's history. Around 1885, coal surpassed wood's usage. Despite its tremendous and rapid expansion, coal was, in turn, overtaken by petroleum in the middle of the 20th century. Natural gas, too, experienced rapid development into the second half of the 20th century, and coal began to expand again. Late in the 20th century still another form of energy, nuclear electric power, was developed and made significant contributions.

While the Nation's energy history is one of large-scale change as new forms of energy were developed, the outlook for the next couple of decades (assuming current laws, regulations, and policies) is for continued growth and reliance on the three major fossil fuels—petroleum, natural gas, and coal—modest expansion in renewable resources, and relatively flat generation from nuclear electric power.

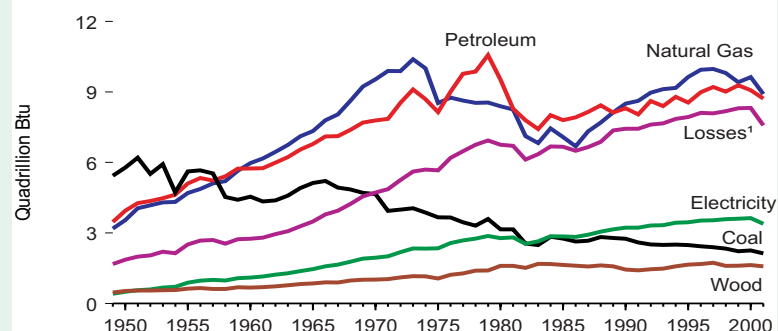
# Consumption by Sector

**Figure 7. Energy Consumption by End-Use**



The industrial sector of the economy used the largest share of energy and showed the greatest volatility. In particular, steep drops occurred in 1975 and 1980-83 in response to high oil prices. Transportation was the next largest energy consuming sector, followed by residential use and commercial use.

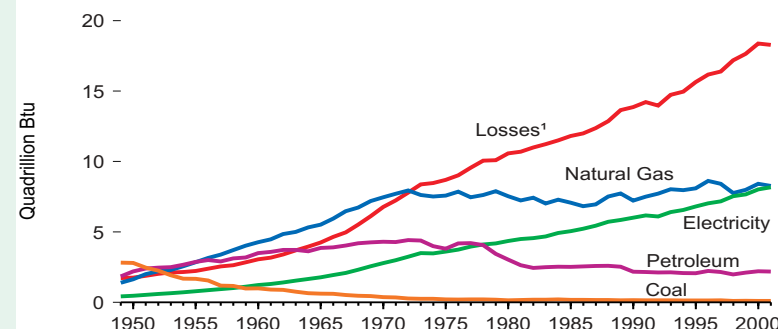
**Figure 9. Industrial Energy Consumption**



<sup>1</sup> Energy lost during generation, transmission, and distribution of electricity.

Coal, once the prominent form of energy in the industrial sector, gave way to natural gas and petroleum in the late 1950s. Both natural gas and petroleum expanded rapidly until the early 1970s; after that, large swings occurred. All forms of energy used in the industrial sector turned down in 2001.

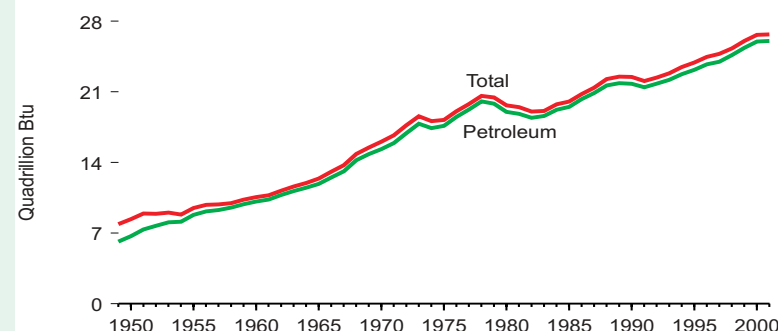
**Figure 8. Residential and Commercial Energy Consumption**



<sup>1</sup> Energy lost during generation, transmission, and distribution of electricity.

Coal, once important to residential and commercial consumers, was gradually replaced by other forms of energy. Petroleum use peaked in the early 1970s. Natural gas grew fast until the early 1970s and then fluctuated around the 1970 level over the next three decades. Meanwhile, electricity's use (and related losses) expanded dramatically.

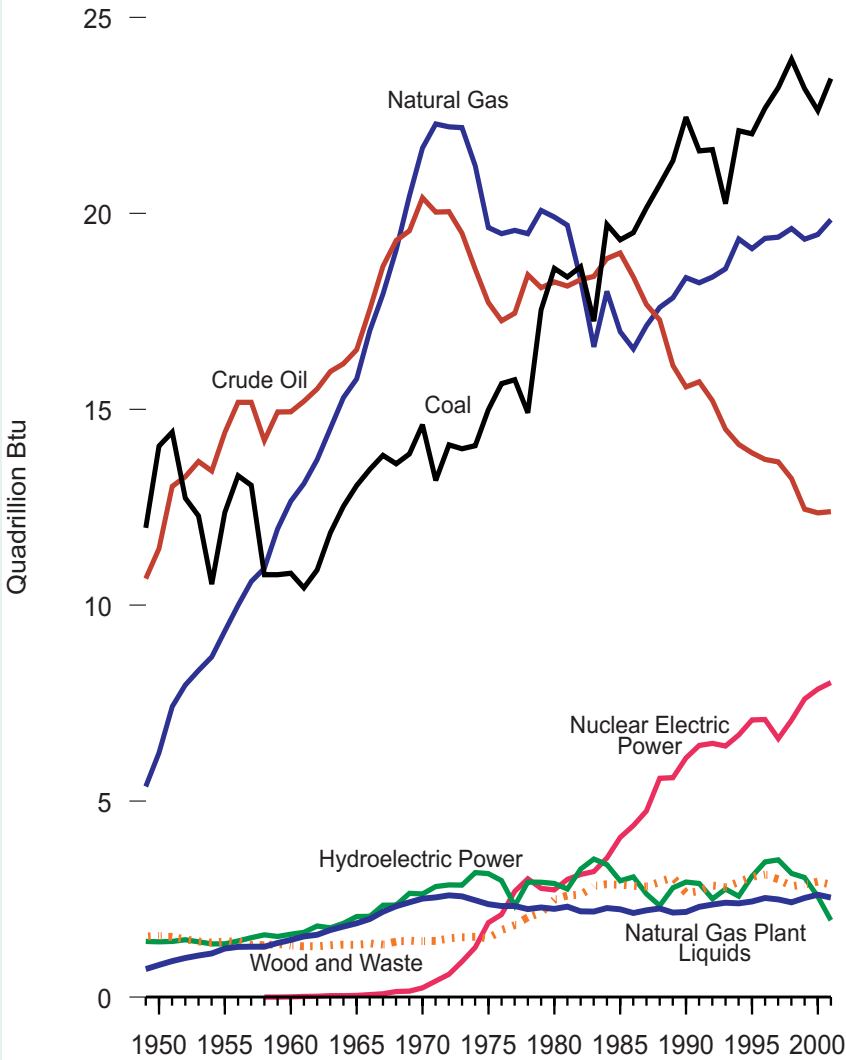
**Figure 10. Transportation Energy Consumption**



The transportation sector's use of energy, which is overwhelmingly petroleum, more than tripled from 1949 to 2001. Motor gasoline accounts for about two-thirds of the petroleum consumed in the sector. Distillate fuel oil and jet fuel are other important petroleum products used in the sector.

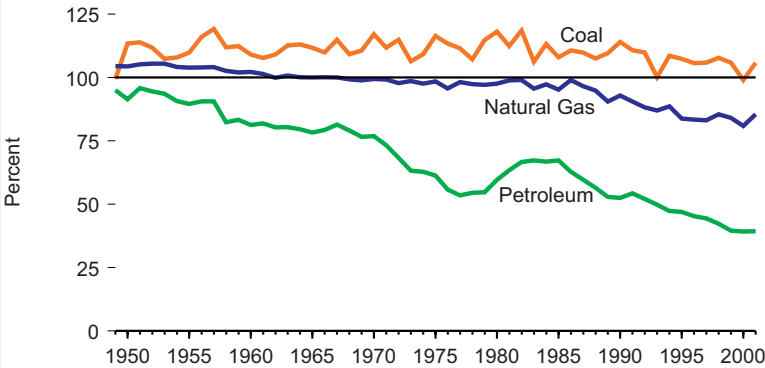
# Production and Trade

Figure 11. Energy Production by Major Source



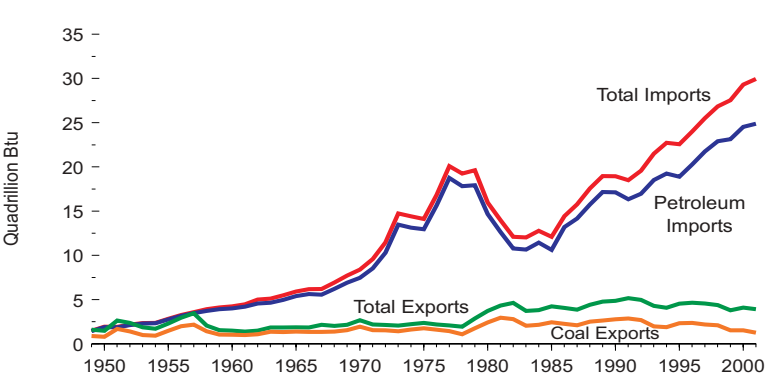
Most energy produced in the United States comes from fossil fuels—coal, natural gas, and crude oil. Coal, the leading source at the middle of the 20th century, was surpassed by crude oil and natural gas for many years, but again became the leading source of energy in the mid-1980s, used primarily for electric generation. Hydroelectric output in 2001 was the lowest level since 1966.

Figure 12. Fossil Fuel Production as Share of Its Consumption



The Nation almost always produced more than enough coal for our own requirements. For many years, we were also self-sufficient in natural gas, but after 1967, we produced less than we consumed each year. Petroleum production fell far short of domestic requirements.

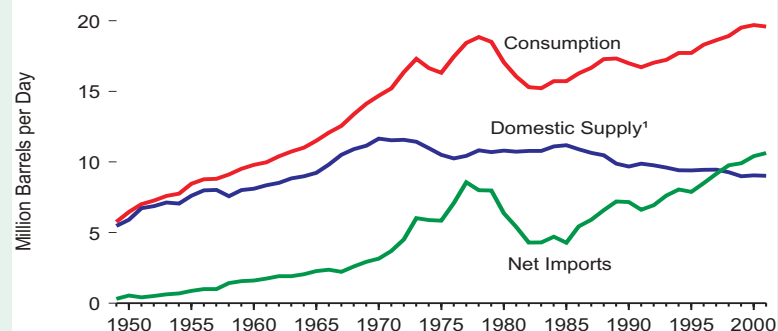
Figure 13. Energy Imports and Exports



Since the late 1950s, the Nation imported more energy than it exported. In 2001, the United States imported 30 quadrillion Btu of energy and exported 4 quadrillion Btu. Most imported energy was in the form of petroleum; in recent years, natural gas imports grew, primarily from Canada. Exported energy was primarily in the form of coal until the late 1970s when petroleum exports expanded, and, in some years, even exceeded coal exports.

# Petroleum Overview and Crude Oil Production

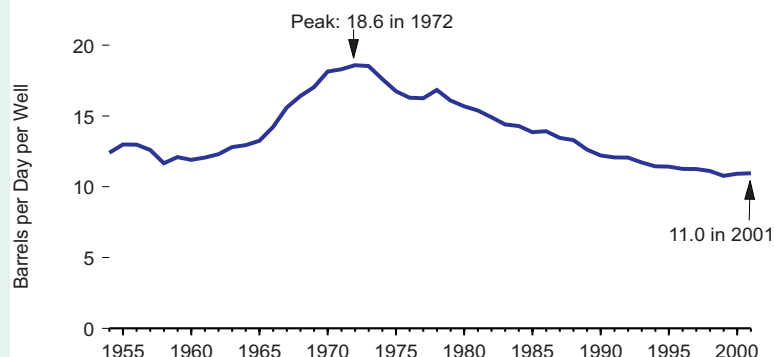
**Figure 14. Petroleum Overview**



<sup>1</sup> Crude oil and natural gas plant liquids production; refinery gains; and field production of other components.

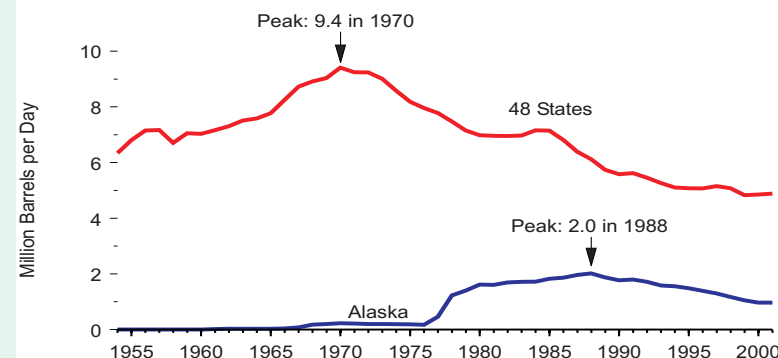
When U.S. domestic supply of petroleum peaked at 11.7 million barrels per day in 1970, net imports stood at 3.2 million barrels per day. As domestic supply declined, consumption grew. In 1998, for the first time, net imports surpassed domestic supply. In 2001, domestic supply was 9.0 million barrels per day and net imports were 10.6 million barrels per day.

**Figure 16. Crude Oil Well Productivity**



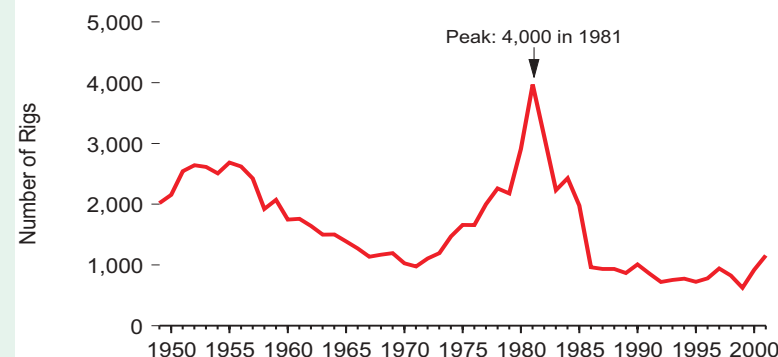
The amount of crude oil produced per day per well rose sharply in the 1960s, reached a peak of 18.6 barrels per day per well in 1972, and, except for a brief recovery in 1978, fell through 1999. In 2001, productivity measured 11.0 barrels per day per well, 41 percent below the peak.

**Figure 15. 48 States and Alaskan Crude Oil Production**



Crude oil production peaked in the U.S. 48 States at 9.4 million barrels per day in 1970. As production fell in the 48 States, Alaska's production came on line and helped supply U.S. needs. Alaskan production peaked at 2.0 million barrels per day in 1988, then fell to less than half the peak rate by 2001.

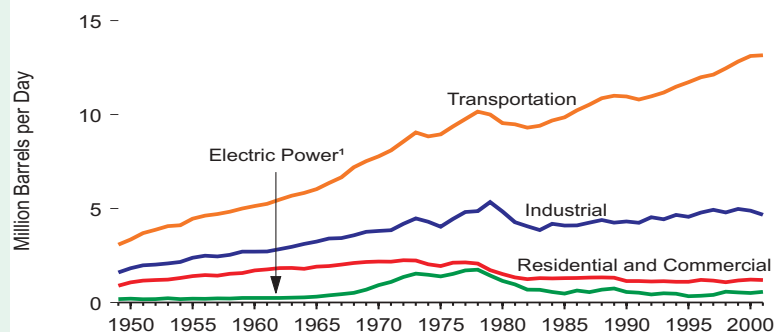
**Figure 17. Crude Oil and Natural Gas Rotary Rigs in Operation**



Rotary rig activity declined sharply in the period from 1955 to 1971. After 1971, the number of rigs in operation began to climb again, and a peak of 4 thousand rigs in operation was registered in 1981. A sharp decline followed, and the number of rigs in operation in 2001 stood at 71 percent below the peak level in 1981.

# Petroleum Consumption and Prices

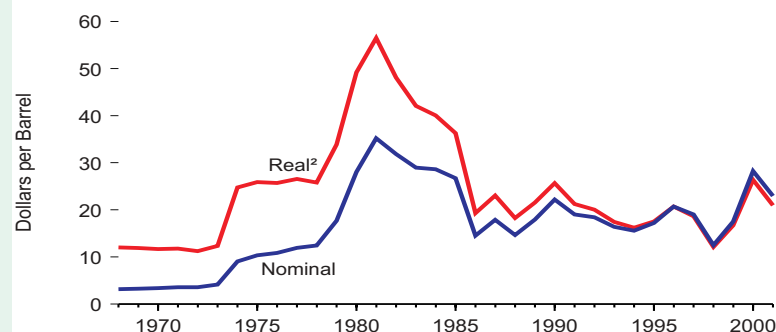
**Figure 18. Petroleum Consumption by Sector**



<sup>1</sup> Through 1988, electric utilities only; after 1988, includes independent power producers.

Transportation was the largest consuming sector of petroleum and the one showing the greatest expansion over the second half of the 20th century. In 2001, 13 million barrels per day of petroleum products were consumed for transportation purposes, accounting for 69 percent of all petroleum used.

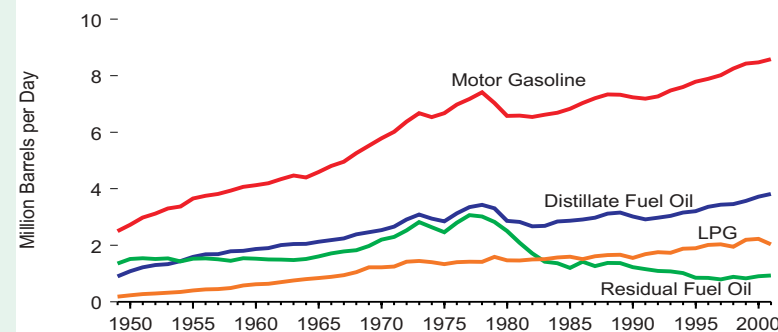
**Figure 20. Crude Oil Refiner Acquisition Cost<sup>1</sup>**



<sup>1</sup> Composite of domestic and imported crude oil. <sup>2</sup> In chained (1996) dollars, calculated by using gross domestic product implicit price deflator.

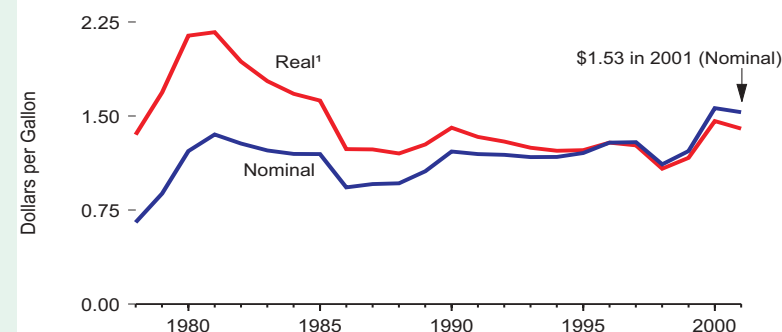
The refiner acquisition composite (domestic and foreign) cost of crude oil in nominal (unadjusted for inflation) dollars peaked at \$35 per barrel in 1981. The price fell dramatically over the years that followed, reaching \$18 per barrel in 1999. It jumped to \$28 per barrel in 2000 and then declined again to \$23 per barrel in 2001.

**Figure 19. Petroleum Consumption by Selected Product**



Motor gasoline is the single largest petroleum product consumed in the United States. Its consumption stood at 8.6 million barrels per day in 2001, 44 percent of all petroleum consumption. Distillate fuel oil and liquefied petroleum gases (LPG) are other important products. The use of residual fuel oil fell off sharply after 1977.

**Figure 21. Price of Motor Gasoline**

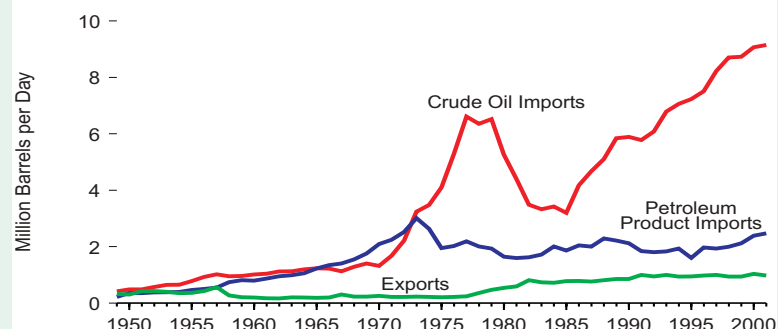


<sup>1</sup> In chained (1996) dollars, calculated by using gross domestic product implicit price deflator.

In nominal (unadjusted for inflation) dollars, Americans paid an average of 65¢ per gallon for motor gasoline in 1978. The 2001 average price of \$1.53 was 135 percent higher than the 1978 rate but, adjusted for inflation, it was 4 percent higher.

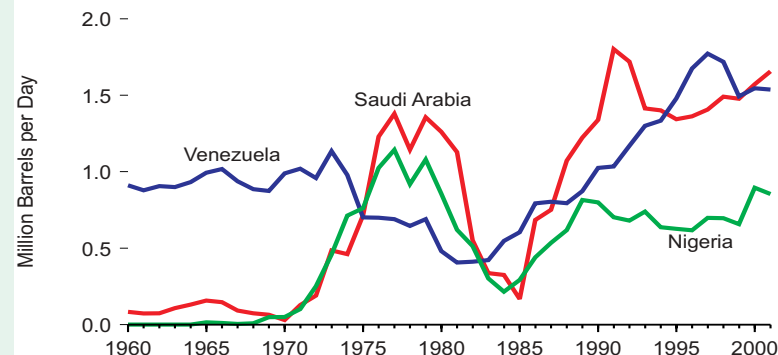
# Petroleum Trade

**Figure 22. Petroleum Trade**



U.S. crude oil imports grew rapidly from mid-century until the late 1970s. From 1979 to 1985, imports fell sharply due to improved efficiency and conservation efforts. After 1985, the upward trend resumed. In 2001, crude oil imports reached a record-high level of 9.1 million barrels per day, and petroleum product imports stood at 2.5 million barrels per day.

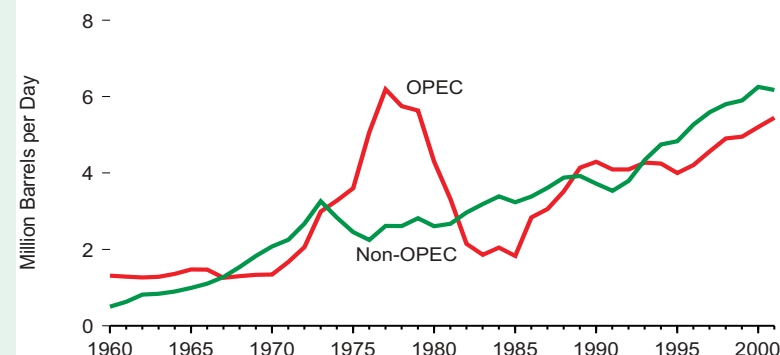
**Figure 24. Imports From Selected OPEC Countries**



OPEC = Organization of Petroleum Exporting Countries.

Among OPEC countries, Saudi Arabia, Venezuela, and Nigeria—nations from three different continents—were key suppliers of petroleum to the American market. Each experienced wide fluctuation in the amount of petroleum it sold to the United States over the decades. In 2001, the three together accounted for three-fourths of U.S. imports from OPEC countries.

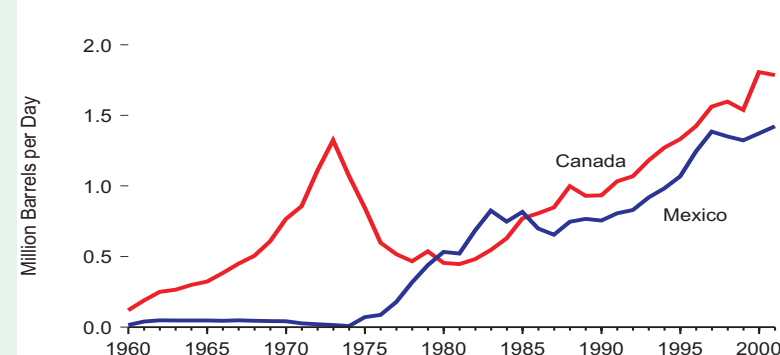
**Figure 23. Imports From OPEC and Non-OPEC Countries**



OPEC = Organization of Petroleum Exporting Countries.

As U.S. petroleum imports rose sharply in the late 1970s, the Nation's reliance on petroleum from the Organization of Petroleum Exporting Countries (OPEC) grew. In 1977, 70 percent of U.S. petroleum imports came from OPEC countries. After 1992, more petroleum imports came from non-OPEC countries than from OPEC countries.

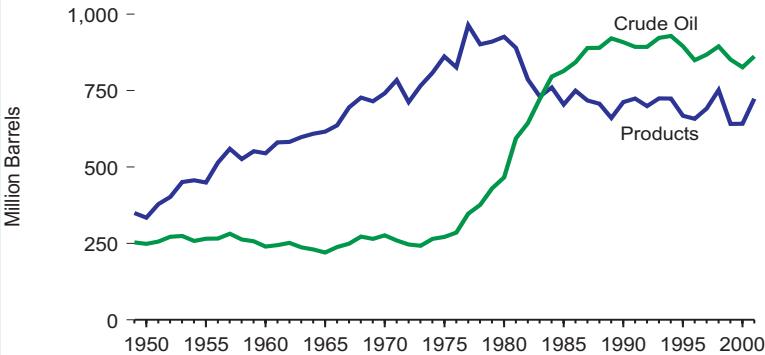
**Figure 25. Imports From Canada and Mexico**



Canada and Mexico, our national neighbors, supplied the largest quantities of petroleum from non-OPEC countries. Imports from Mexico were insignificant until the mid-1970s when they began to play a key role in U.S. supplies. In 2001, Canada and Mexico together provided over one-fourth of all U.S. petroleum imports.

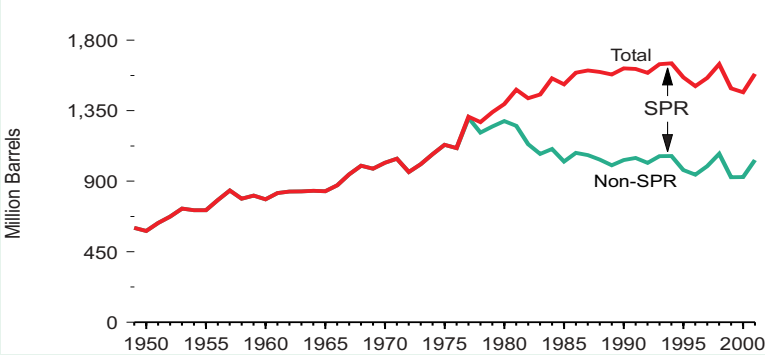
# Petroleum Stocks

Figure 26. Stocks of Crude Oil and Products



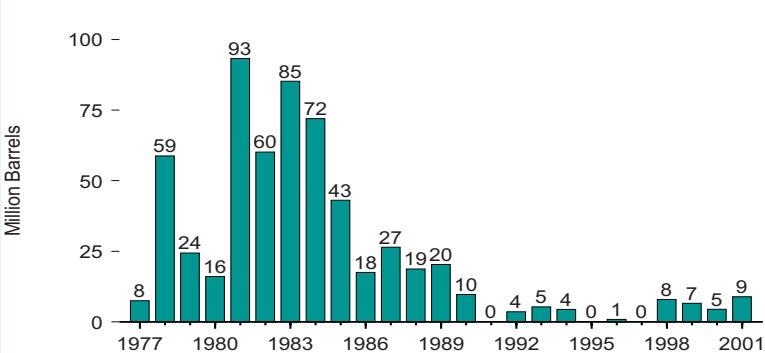
Through 1983, the Nation held most of its petroleum storage in the form of products, which are ready for the market. After that, most petroleum in storage was in the form of crude oil. At the end of 2001, petroleum stocks totaled 1.6 billion barrels, 54 percent crude oil and 46 percent products.

Figure 27. Strategic Petroleum Reserve (SPR) Stocks



In 1977, the United States began building a national reserve of petroleum stocks in case of emergency. The amount of crude oil held in the Strategic Petroleum Reserve (SPR) peaked at 592 million barrels in 1994 and 1995. The level at the end of 2001 was 550 million barrels. As SPR stocks were built, non-SPR stocks were reduced slightly.

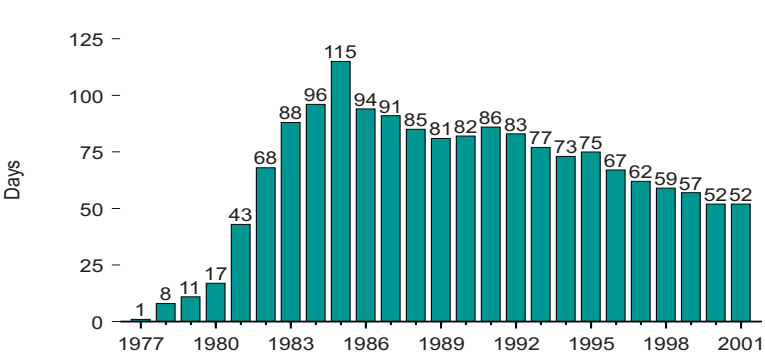
Figure 28. Crude Oil Imports for SPR<sup>1</sup>



<sup>1</sup>Imported by SPR and imported by others for SPR.

Most of the crude oil in SPR is imported oil, and most of it came in during the early 1980s. In fact, from 1991 through 1997, only 14 million barrels were imported for the reserve, and in 3 of those years, no oil at all was imported for the reserve. In 2001, 9 million barrels of crude oil were imported for SPR.

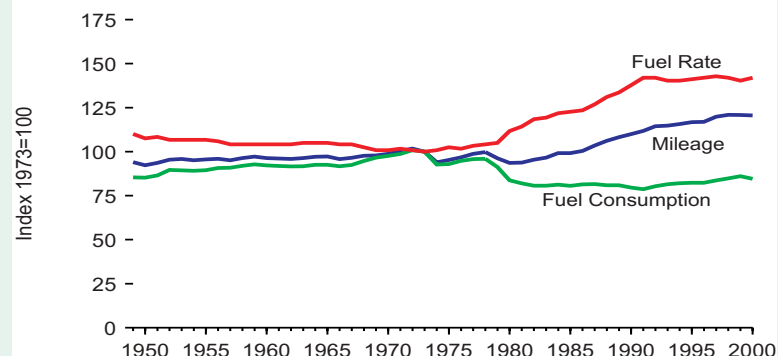
Figure 29. SPR Stocks as Days' Worth of Net Imports



An important SPR measure is the number of days' worth of total net imports of petroleum that could be met by the reserve in an emergency. The peak level occurred in 1985 when the reserve could have supplied 115 days of petroleum net imports, at the 1985 level. The rate trended down since then and stood at 52 days at the end of 2001.

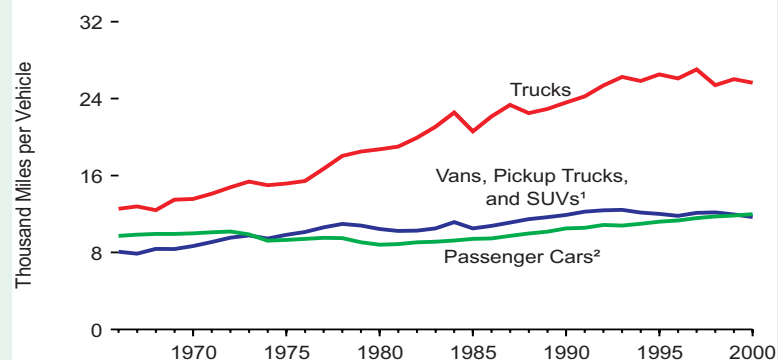
# Motor Vehicles

**Figure 30. Motor Vehicle Indicators**



The composite motor vehicle fuel rate (miles per gallon) soared 42 percent from 1973 to 1991 but remained nearly flat over succeeding years. Mileage (miles driven per vehicle) grew steadily from 1980 to 1998, but declined slightly in 1999 and 2000. Fuel consumption per vehicle fell 21 percent from 1973 to 1991, but rebounded 7 percent by 2000.

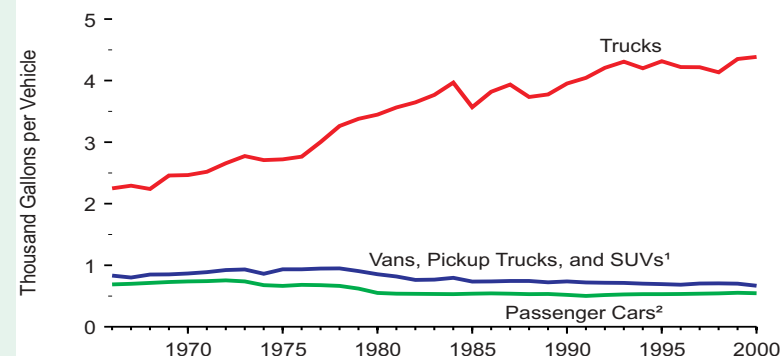
**Figure 32. Motor Vehicle Mileage**



<sup>1</sup> Sport-utility vehicle. <sup>2</sup> Motorcycles are included through 1989.

Truck miles traveled per year greatly exceeded that of other vehicle types and grew sharply from 1966 to 2000, up 105 percent. In 2000, trucks averaged 26 thousand miles per vehicle per year, while passenger cars, vans, pickup trucks, and sport utility vehicles averaged just under 12 thousand miles per year.

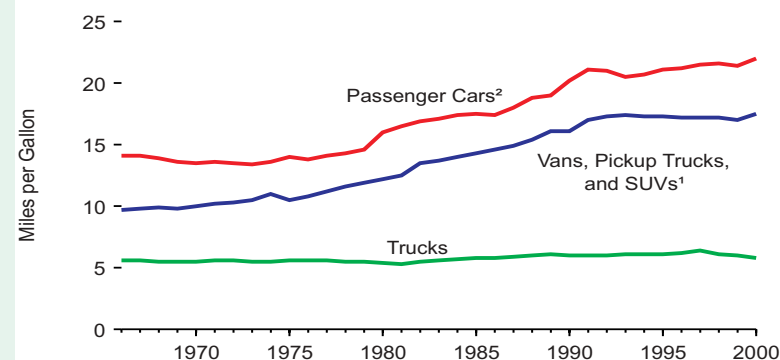
**Figure 31. Motor Vehicle Fuel Consumption**



<sup>1</sup> Sport-utility vehicle. <sup>2</sup> Motorcycles are included through 1989.

From 1966 to 2000, truck fuel consumption rates rose 95 percent from 2.3 thousand gallons per truck to 4.4 thousand gallons per truck. Fuel consumption rates of other vehicle types fell: passenger cars down 21 percent and other vehicles down 20 percent.

**Figure 33. Motor Vehicle Fuel Rates**



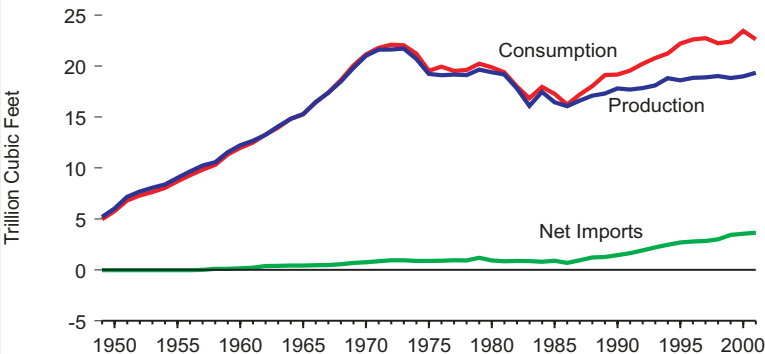
<sup>1</sup> Sport-utility vehicle. <sup>2</sup> Motorcycles are included through 1989.

Since 1976, the average fuel rates (miles per gallon) of passenger cars and vans, pickup trucks, and sport utility vehicles trended upward, starting the new century with much better rates than they had a quarter century earlier. The truck fuel rate, however, declined each year from 1998 through 2000.

Note: Motor vehicles include passenger cars, motorcycles, vans, pickup trucks, sport utility vehicles, trucks, and buses.

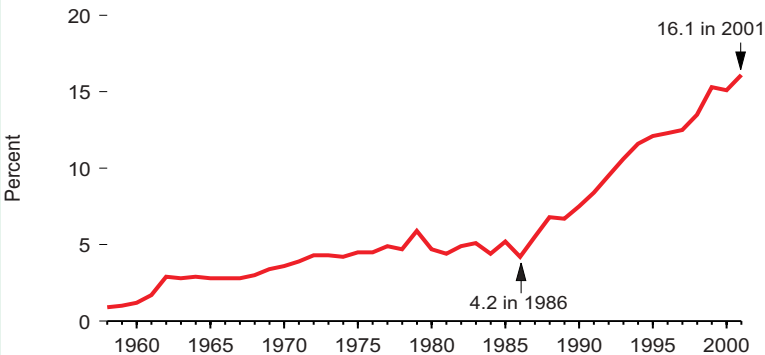
# Natural Gas

Figure 34. Natural Gas Overview



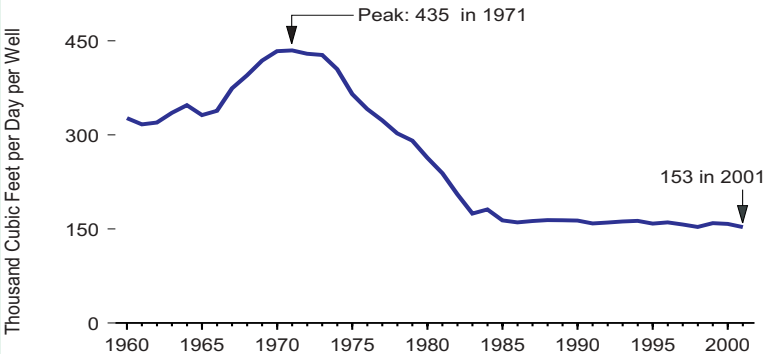
U.S. natural gas production and consumption were nearly in balance through 1986. When consumption began to outpace production, imports of natural gas rose to meet U.S. requirements for the fuel. In 2001, consumption stood at 22.6 trillion cubic feet (Tcf), production at 19.4 Tcf, and net imports at 3.6 Tcf.

Figure 36. Net Imports as Share of Consumption



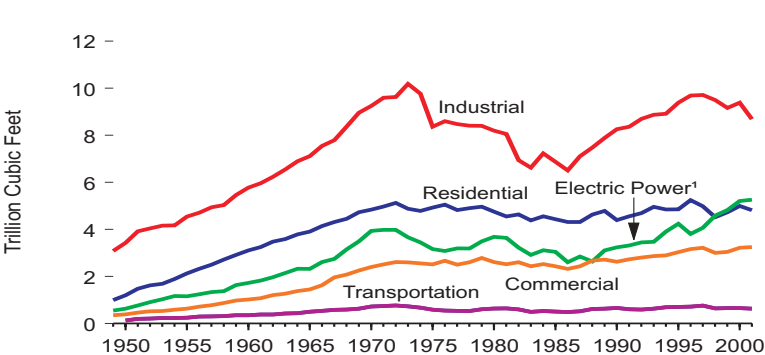
Net imports as a share of consumption registered in the 4-to-5 percent range in the 1970s and early 1980s. Net imports measured 4.2 percent of consumption in 1986, which was followed by consumption increases that outpaced production growth. Net imports expanded, and in 2001 accounted for 16.1 percent of consumption.

Figure 35. Natural Gas Well Productivity



Gas well productivity, measured as gross withdrawals per day per well, grew rapidly in the late 1960s, peaked in 1971, and then fell sharply until the mid-1980s. Productivity remained nearly steady after 1985. The 2001 rate of 153 thousand cubic feet per day per well was 65 percent below the 1971 peak level.

Figure 37. Natural Gas Consumption by Sector

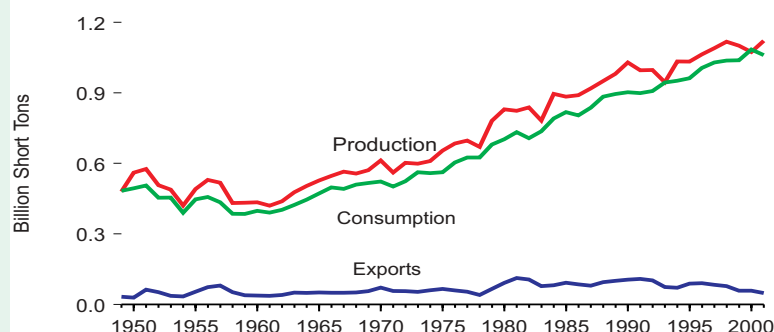


<sup>1</sup> Through 1988, electric utilities only; after 1988, includes independent power producers.

The industrial sector was both the largest consuming sector of natural gas and the sector with the greatest volatility over the years due to variability in industrial output. The electric power sector accounted for nearly one-fourth of all natural gas consumption in 2001.

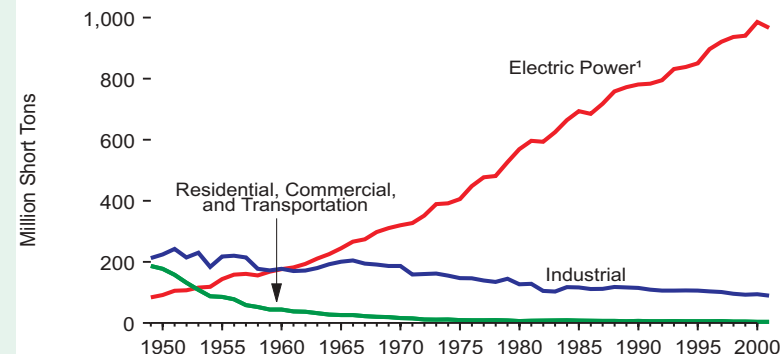
# Coal

**Figure 38. Coal Overview**



Unlike petroleum or natural gas, domestic supplies of coal nearly always outpaced U.S. consumption of the resource. Coal exports peaked at 113 million short tons in 1981. In 2001, the United States exported 49 million short tons, over a third of it to Canada.

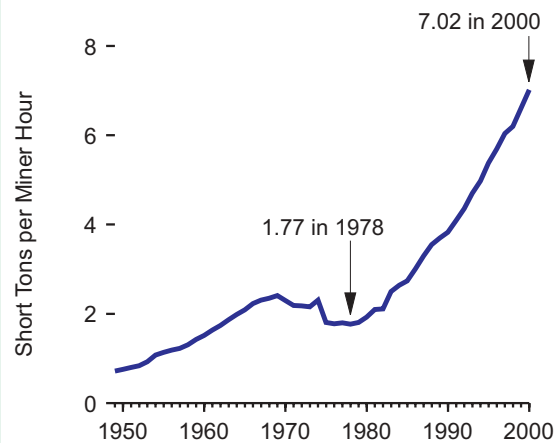
**Figure 39. Coal Consumption by Sector**



<sup>1</sup> Through 1988, electric utilities only; after 1988, includes independent power producers.

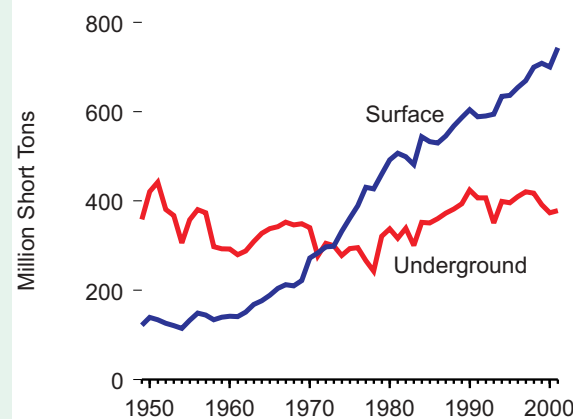
In the 1950s, most coal was consumed in the industrial sector, many homes were still heated by coal, and the transportation sector consumed coal in steam-driven trains and ships. By the 1960s, most coal was used for generating electricity and by 2001 the electric power sector's share stood at 91 percent of all coal consumption.

**Figure 40. Coal Mining Productivity**



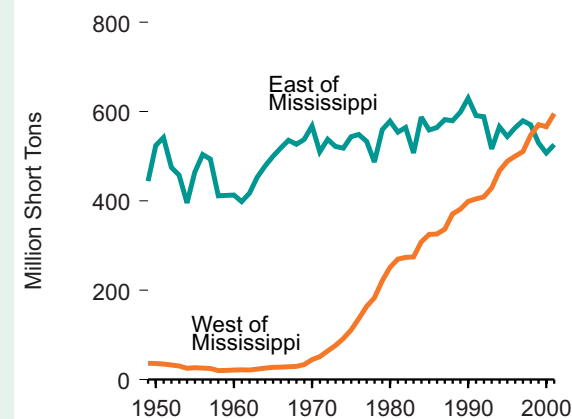
Improved mining technology and the shift toward more surface-mined coal promoted increased productivity from the Nation's mines after 1978.

**Figure 41. Production by Mining Method**



Most growth of coal production came from surface mines, which surpassed underground production after 1973.

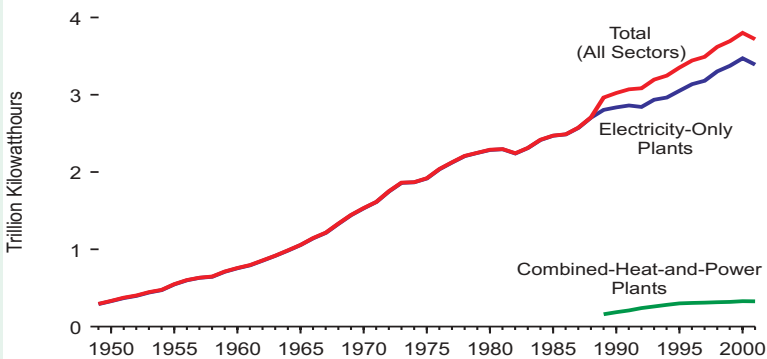
**Figure 42. Production by Location**



Western coal production expanded tremendously after 1969 and exceeded production from the East beginning in 1999.

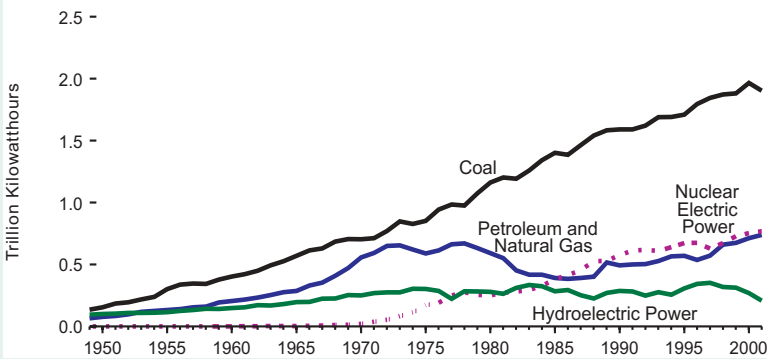
# Electricity Generation and Useful Thermal Output

Figure 43. Electric Power Net Generation



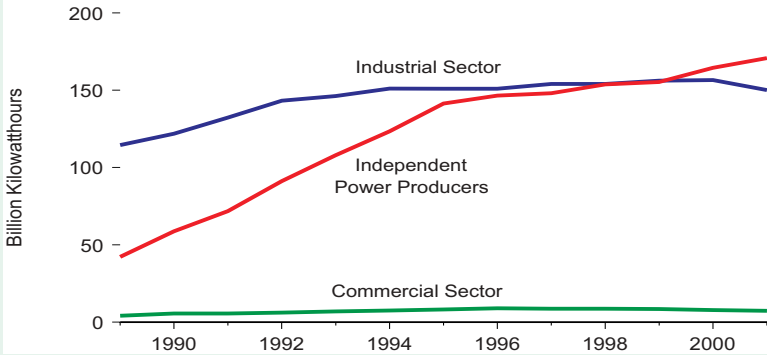
Electric power generation grew from 0.3 trillion kilowatthours in 1949 to 3.7 trillion kilowatthours in 2001. Over the entire span, electricity net generation failed to increase in only two recession-affected years, 1982 and 2001, when 2-percent decreases were recorded.

Figure 44. Major Sources of Net Generation



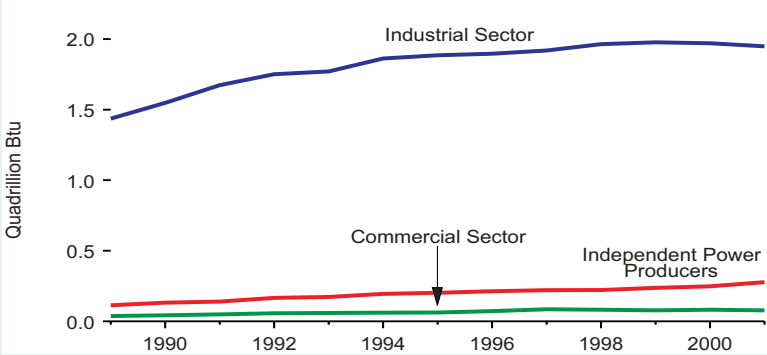
Most net generation of electricity came from coal. In fact, in 2001, fossil fuels (coal, petroleum, and natural gas) accounted for 71 percent of all net generation, while nuclear electric power contributed 21 percent, and renewable energy resources 8 percent. Most net generation from renewable energy resources was derived from hydroelectric power.

Figure 45. Net Generation at Combined-Heat-and- Power Plants



Some facilities exist to produce only electricity; others function as combined-heat-and-power (CHP) plants that produce both electricity and heat from a single heat source. Some paper mills and refineries, which are part of the industrial sector, operate as CHP plants, and some commercial sector facilities, such as hospitals and college campuses, are CHP facilities.

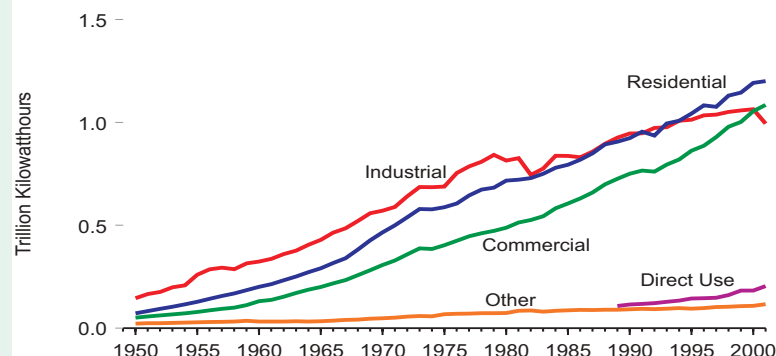
Figure 46. Useful Thermal Output at Combined-Heat- and- Power Plants



The non-electrical output at a combined-heat-and-power (CHP) plant is called useful thermal output. Useful thermal output is thermal energy that is available from the plant for use in industrial or commercial processes or heating or cooling applications. In 2001, nearly 2 quadrillion Btu of useful thermal output was created by the industrial sector.

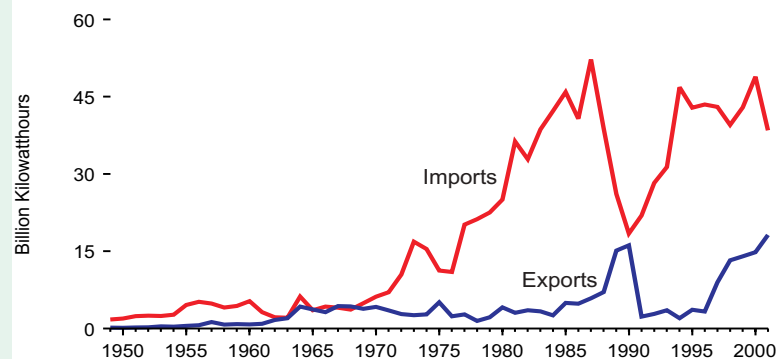
# Electricity Sales, Prices, and Trade

**Figure 47. Retail Sales by Sector**



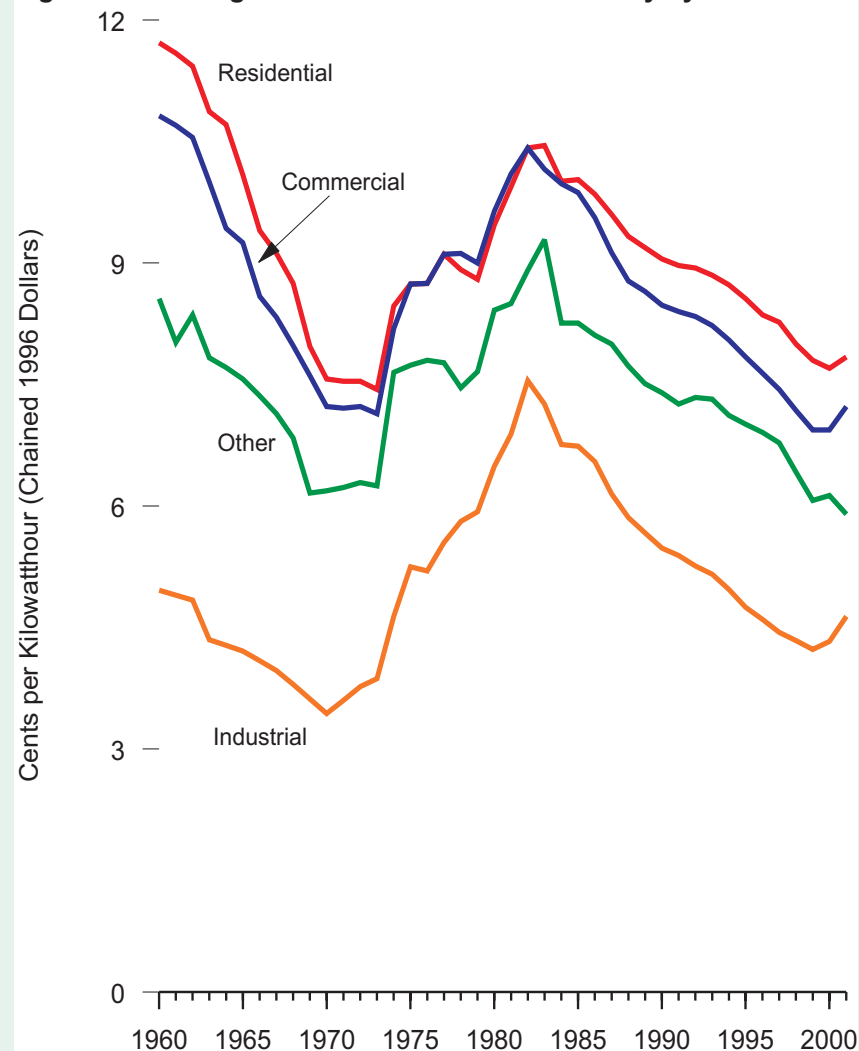
After mid-century, enormous growth occurred in electricity sales in all three major sectors—residential, industrial, and commercial. Beginning in 1993, residential sales surpassed industrial sales. The industrial sector's use of electricity showed the greatest volatility, especially from the late 1970s through the mid 1980s.

**Figure 49. Electricity Trade**



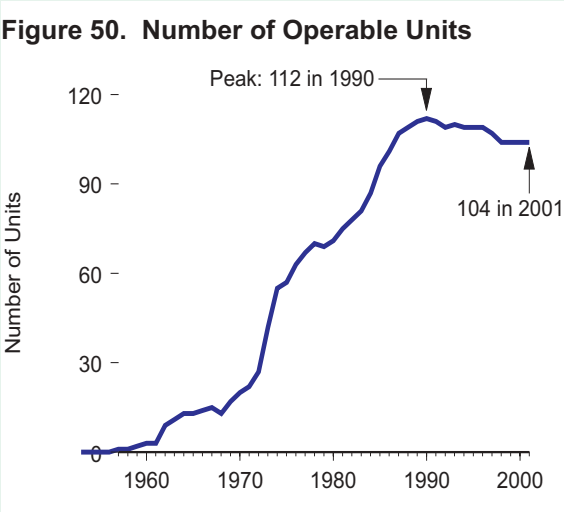
Except for a few years in the 1960s when imported and exported electricity were nearly equal, the United States imported more electricity than it exported. Most electricity trade occurred with Canada, with smaller exchanges between the United States and Mexico. In 2001, net imported electricity was less than 1 percent of all electricity used in the United States.

**Figure 48. Average Real Retail Prices of Electricity by Sector**

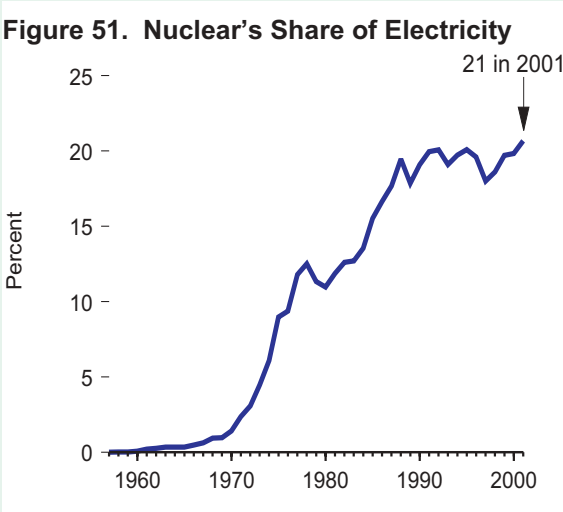


In inflation-adjusted terms, most electricity sector prices fell steeply in the 1960s, reversed course around 1970 to rise sharply through the early 1980s, and then recorded a pattern of steady decline until 2001, when prices turned up again. Over the decades, industrial consumers paid the lowest rates for electricity; residential customers usually paid the highest prices. In 2001, all sectors paid lower rates than they had in 1960, when adjusted for inflation.

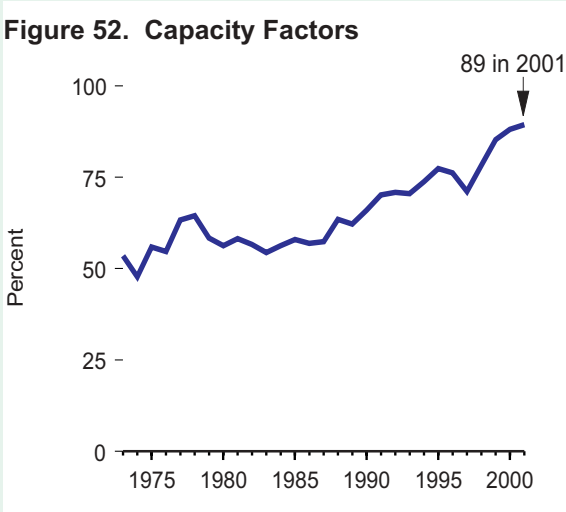
# Nuclear Electric Power



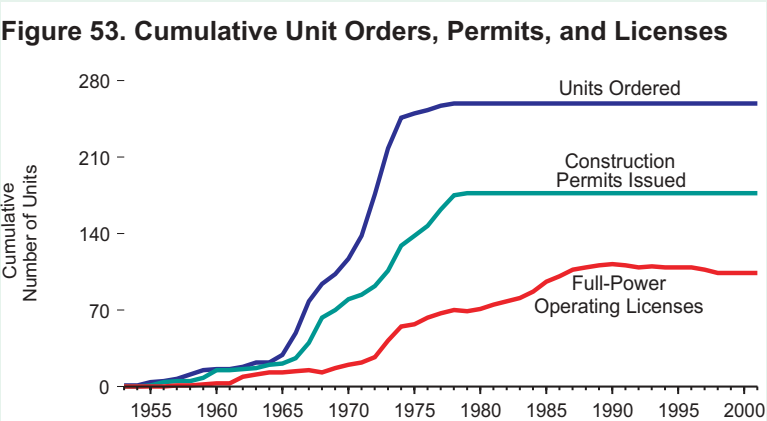
In 1957, a new plant in Shippingport, Pennsylvania, became the first operable nuclear electric plant in the United States. Many new units became operable in the 1970s and 1980s.



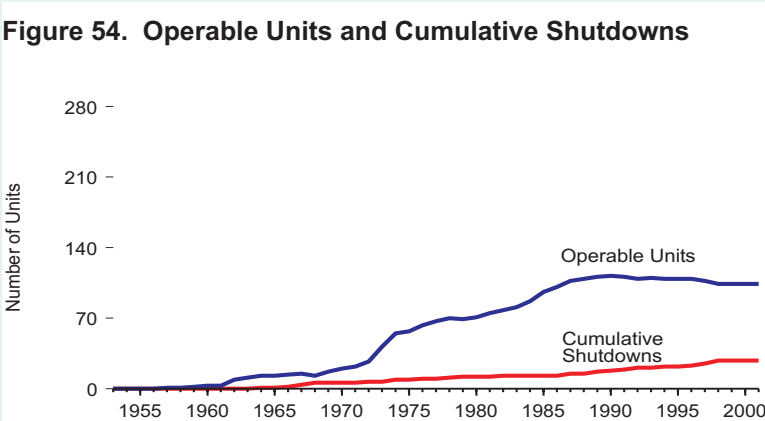
Over the latter part of the last century, nuclear electric power played a key role in meeting the Nation's rapidly growing electricity requirement. In 2001, 21 percent of all U.S. electricity came from nuclear electric



Capacity factors measure actual power generation as a share of maximum possible output. Factors for the industry were in the 50-to-60 percent range through the 1980s, but improved to 89 percent by 2001.



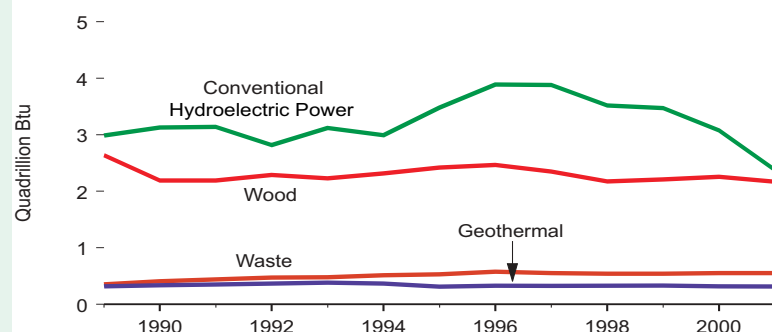
A total of 259 nuclear electric power units have been ordered over the history of the industry in the United States. The last new orders were placed in 1978. Of the 259 orders, 177 advanced to the issuance of construction permits and, of those, 132 gained full-power operating licenses.



Out of the 132 units that were granted full-power operating licenses, over time 28 were shut down permanently. The largest number of units ever operable in the United States was 112 in 1990. From 1998 through 2001, 104 units were operable.

# Renewable Energy

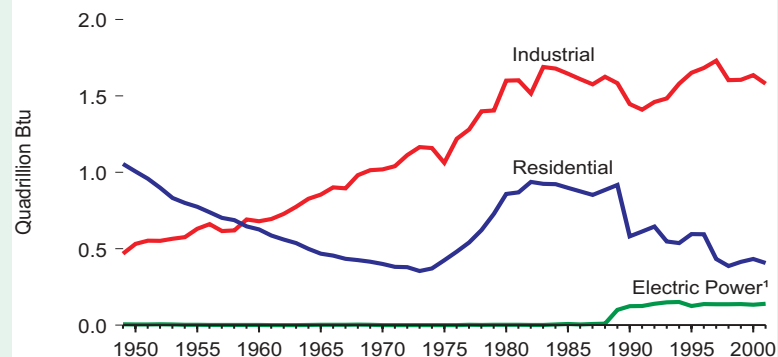
**Figure 55. Renewable Energy Consumption by Source**



Note: Wood includes wood, black liquor, and other wood waste.

Total U.S. renewable energy consumption, which stood at about 7 quadrillion Btu per year from 1995 to 1999, fell in 2000 and 2001. Conventional hydroelectric power, which accounted for about half of the total, declined steeply in 2000 and 2001. Wood was the next largest source of renewable energy, followed by waste and geothermal. Smaller quantities came from alcohol fuels, solar, and wind.

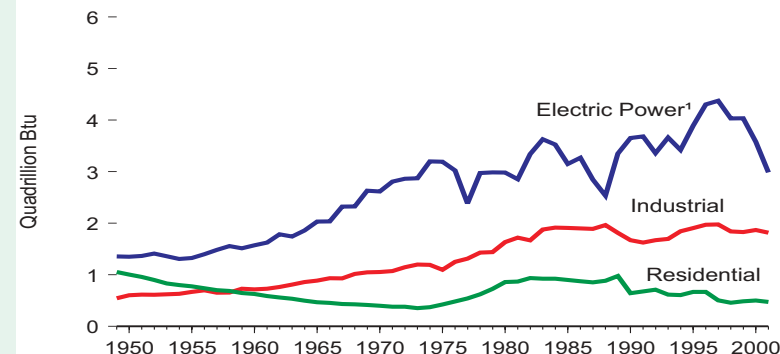
**Figure 57. Wood Consumption by Selected Sector**



<sup>1</sup> Through 1988, electric utilities only; after 1988, includes independent power producers.

Except for the period from 1974 through 1982, residential use of wood generally declined over the second half of the 20th century, while the industrial sector's use of wood, mainly black liquor, expanded. Twenty-two percent of all wood consumed in 2001 was used to generate electricity. Commercial use of wood was very small.

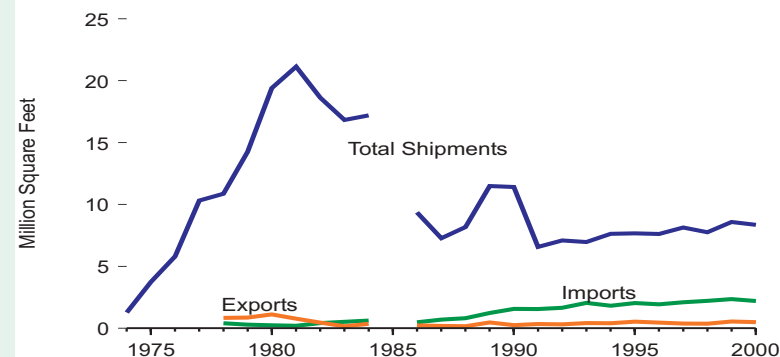
**Figure 56. Renewable Energy Consumption by Sector**



<sup>1</sup> Through 1988, electric utilities only; after 1988, includes independent power producers.

Most renewable energy was consumed by the electric power sector to generate electricity. After 1958, the industrial sector was the second largest consuming sector of renewable energy, mostly black liquor, a by-product of paper production. Residential sector usage of renewable energy (mostly wood) was the third largest consuming sector.

**Figure 58. Solar Collector Shipments and Trade**

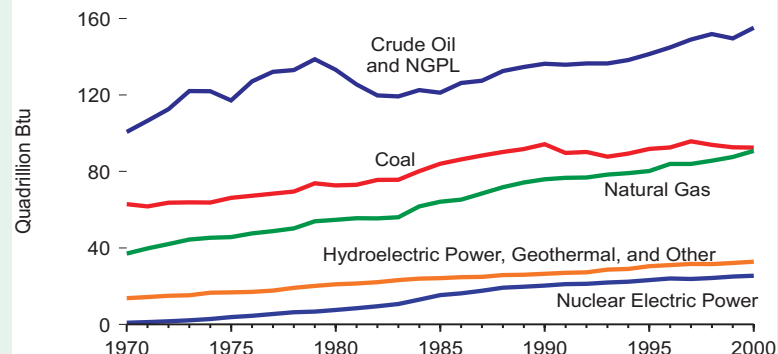


Note: Data were not collected for 1985. Shipments include all domestically manufactured collectors plus imports.

Solar collector total shipments peaked in 1981 at 21 million square feet. From 1991 through 2000, the level of shipments was about 7 to 8 million square feet per year. Since 1983, imports of solar collectors exceeded exports, and the imports trend was generally increasing.

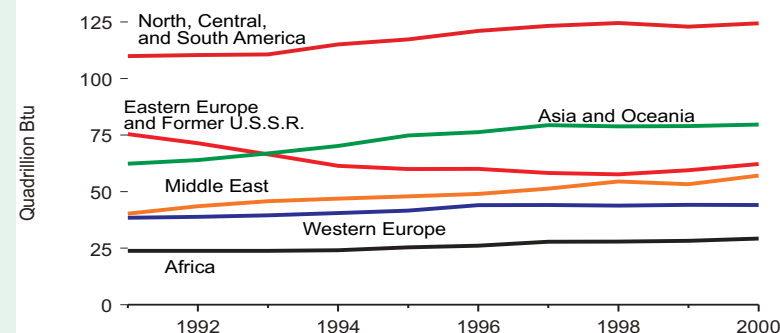
# International Energy

**Figure 59. World Primary Energy Production by Source**



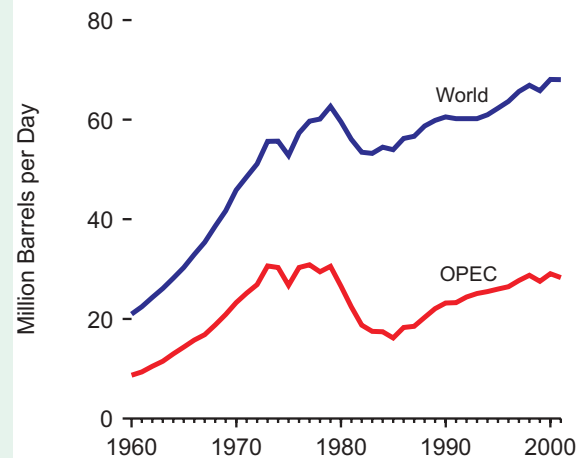
From 1970 to 2000, world primary energy production grew by 84 percent. Growth occurred in all types of energy. In 2000, fossil fuels accounted for 85 percent of all energy produced worldwide, renewable energy 8 percent, and nuclear power 6 percent.

**Figure 60. World Primary Energy Production by Region**



One-third of the 397 quadrillion Btu of energy produced worldwide in 2000 came from North, Central, and South America. Between 1991 and 2000, total primary energy production grew in all major regions of the world except Eastern Europe and the Former U.S.S.R., where production fell by 18 percent.

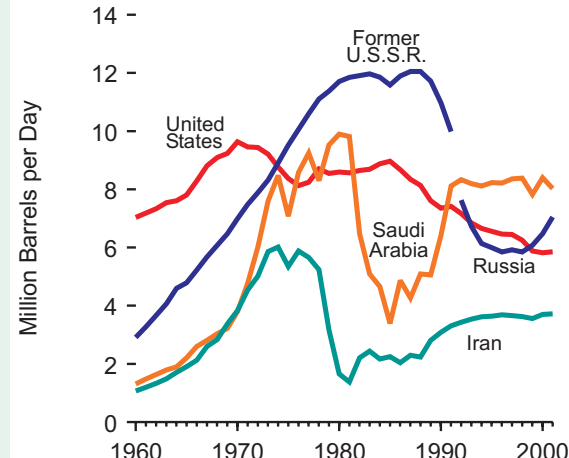
**Figure 61. World Crude Oil Production**



OPEC = Organization of Petroleum Exporting Countries.

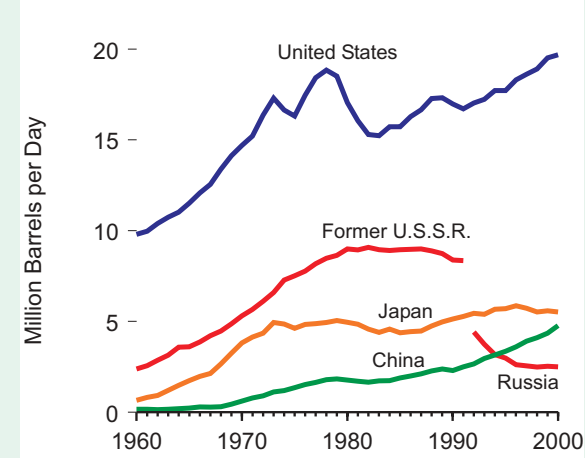
World crude oil production was 68 million barrels per day in 2000 and 2001. OPEC's share fell from 55 percent in 1973 to 42 percent in 2001.

**Figure 62. Leading Crude Oil Producers**



After 1991, Saudi Arabia was the largest producer. U.S. production peaked in 1970. After 1998, Russia's production surpassed U.S. output.

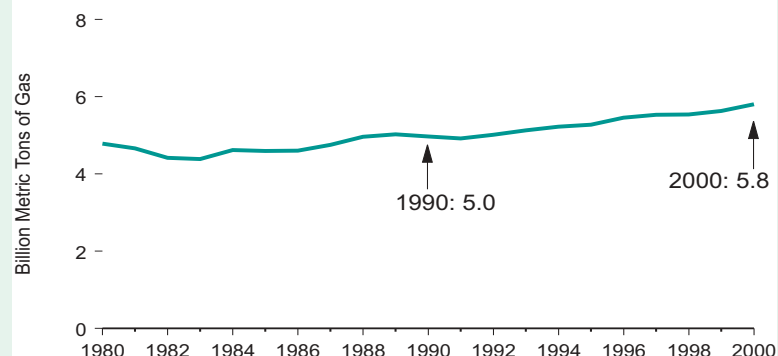
**Figure 63. Leading Petroleum Consumers**



The United States accounted for 26 percent of world consumption of petroleum in 2000. Japan and China accounted for 7 and 6 percent, respectively.

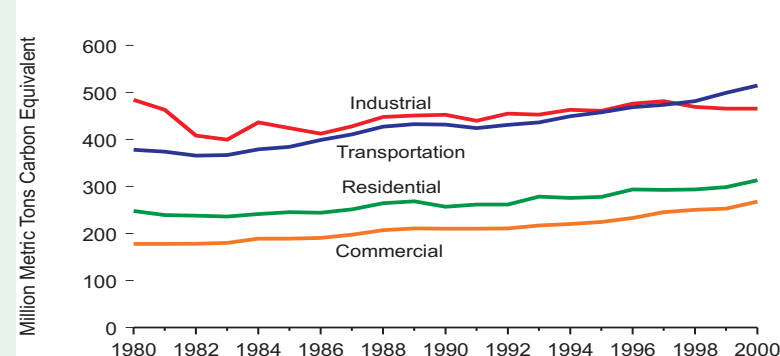
# Carbon Dioxide Emissions

**Figure 64. Carbon Dioxide Emissions**



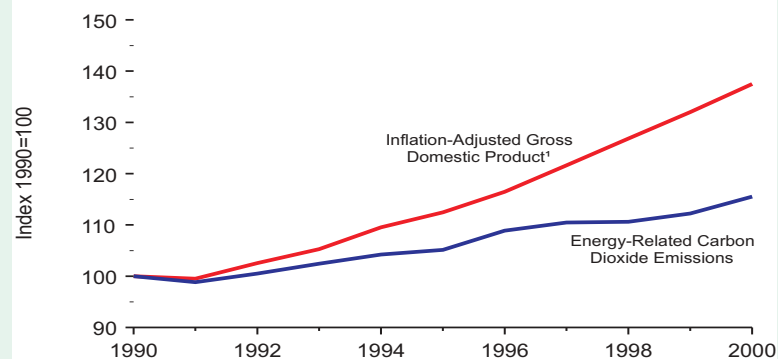
In the United States, fossil fuel combustion is responsible for 98 percent of all emissions from carbon dioxide, which is the most significant greenhouse gas. Total carbon dioxide emissions reached 5.8 billion metric tons of gas in 2000, 17 percent higher than the 1990 level.

**Figure 65. Carbon Dioxide Emissions From Energy Use**



The level of carbon dioxide emissions generated by the industrial sector exceeded other sector levels until 1998 when it was surpassed by transportation emissions. Commercial sector emissions, the smallest of the four sectors, registered the largest percentage gain, 27, from 1990 to 2000.

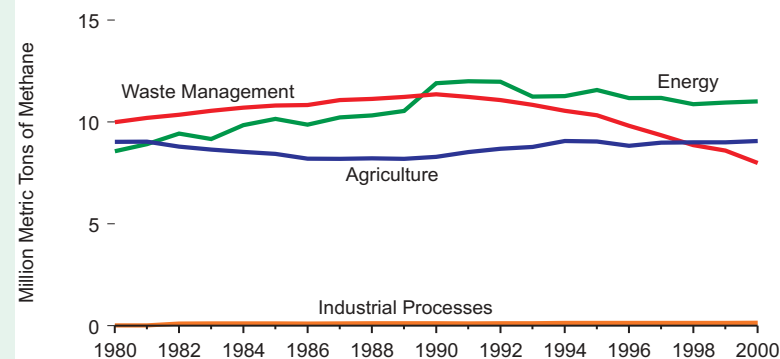
**Figure 66. GDP Growth and Carbon Dioxide Emissions**



<sup>1</sup> Based on chained (1996) dollars.

While gross domestic product (GDP) grew by 38 percent from 1990 to 2000, energy-related carbon dioxide emissions grew by 16 percent. It was primarily the use of less energy per unit of economic output, rather than the use of low-carbon fuels, that held the rate of carbon dioxide emissions growth below that of the inflation-adjusted gross domestic product.

**Figure 67. Methane Emissions by Sector**



In 2000, methane emissions accounted for 9 percent of total U.S. greenhouse gas emissions, weighted by global warming potential. Most methane emissions come from energy, agricultural activities, and waste management. The production, processing, and distribution of natural gas accounted for two-thirds of all energy-related methane emissions in 2000.

## Figure Sources

Data for “Energy Perspectives” figures and text are derived from the following *Annual Energy Review 2001* tables and other sources as cited.

1. Table 1.1.
2. Table 1.5.
3. Table 1.5.
4. Table 1.3.
5. Tables F1a and F1b.
6. Historical data: Table 1.3; projections: Energy Information Administration (EIA), *Annual Energy Outlook 2002*, Tables A1 and A18.
7. Table 2.1a.
8. Tables 2.1b and 2.1c.
9. Table 2.1d.
10. Tables 2.1e, 5.12c, and A3.
11. Table 1.2.
12. Tables 5.1, 6.1, and 7.1.
13. Tables 1.3 and 1.4.
14. Table 5.1.
15. Table 5.2.
16. Table 5.2.
17. Table 4.3.
18. Tables 5.12a, 5.12b, 5.12c, and 5.12d.
19. Table 5.11.
20. Table 5.19.
21. Table 5.22.
22. Tables 5.3 and 5.5.
23. Table 5.4.
24. Table 5.4.
25. Table 5.4.
26. Table 5.14.
27. Table 5.14.
28. Table 5.15.
29. Table 5.15.
30. Table 2.9.
31. Table 2.9.
32. Table 2.9.
33. Table 2.9.
34. Table 6.1.
35. Table 6.4.
36. Table 6.3.
37. Table 6.5.
38. Tables 7.1 and 7.4.
39. Table 7.3.
40. Table 7.6.
41. Table 7.2.
42. Table 7.2.
43. Tables 8.2a, 8.2b, and 8.2c.
44. Table 8.2a.
45. Table 8.2c.
46. Table 8.2d.
47. Table 8.5.
48. Table 8.6.
49. Table 8.1, National Energy Board of Canada, and U.S. Department of Energy, Fossil Fuels, Form FE-781R.
50. Table 9.1.
51. Table 9.2.
52. Table 9.2.
53. Table 9.1.
54. Table 9.1.
55. Table 10.1.
56. Tables 10.2a and 10.2b.
57. Tables 8.3a, 10.2a, and 10.2b.
58. Table 10.3.
59. Table 11.1.
60. Table 11.2.
61. Table 11.5.
62. Table 11.5.
63. Table 11.10.
64. Table 12.1, and EIA, *Emissions of Greenhouse Gases in the United States 2000* (November 2001).
65. Table 12.2.
66. Tables 1.5 and 12.2, and EIA, *Emissions of Greenhouse Gases in the United States 2000* (November 2001).
67. Tables 12.1 and 12.5, and EIA, *Emissions of Greenhouse Gases in the United States 2000* (November 2001).